

REMARKS

Claims 1, 13, 21 and 27 have been amended. Claims 1-27 are pending in the application.

Claims 1 and 13 have been amended for the sole purpose of removing from doubt that the claimed methods are implemented on a computing device, which may include any type of “computer” or other device that includes any type of logic circuitry. Other changes in independent claims 1, 13, 21 are solely being made for purposes of clarifying that the process is updating configuration information of existing network elements, and for correcting typographically errors. The changes are not being made in response a rejection or for purposes of narrowing the claims. Changes to the dependent claims are being made solely to conform to the changes in the independent claims, and are not being made in response to a rejection.

Claims 21 and 27 have been amended only to correct typographical errors.

Rejection under Section 101

The rejection under section 101 is respectfully traversed. According to Section 2106 of the Manual for Patent Examination Procedure (8th ed. August, 2006),

For purposes of an eligibility analysis, a physical transformation “is not an invariable requirement, but merely one example of how a mathematical algorithm [or law of nature] may bring about a useful application.” AT&T, 172 F.3d at 1358-59, 50 USPQ2d at 1452. If USPTO personnel determine that the claim does not entail the transformation of an article, then USPTO personnel shall review the claim to determine if it produces a useful, tangible, and concrete result. In making this determination, the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather on whether the final result achieved by the claimed invention is “useful, tangible, and concrete.”

It is submitted that all of the claims are directed to processes that involve more than mere thought. Each produces a useful, tangible and concrete result, which is configuration information for network devices. Furthermore, with respect to claims 1, 13, and 21, the element “automatically generating” plainly involves use of a machine – a tangible object and not a mere thought. To avoid any further misunderstanding about this, and since it would not substantially or materially alter the scope and meaning of the independent claims, claims 1 and 13 have been amended to make clear that they are directed to processes implemented on one or more computing devices.

Claims 21 and 27 are plainly directed to a computer readable mediums, which are tangible, and therefore do not amount to mere “thought. In claims 1-26 configuration data for a network element is produced, which is in fact tangible and very useful. The configuration data configures the network devices to provide (or possible remove if previously provisioned) packet transport services. Claim 27 is directed to a computer structure for facilitating storage of information about a packet network. This structure is well adapted for use in connection with processes such as automated configuration to network elements based on services specified by, for example, a user. The medium storing data according to this structure is thus not only tangible, but also very useful.

For these reasons, it is respectfully submitted that the rejection of claims 1-7, 13-18 and 21-27 is in error, and therefore its withdrawal is respectfully requested.

Rejection under Section 102(b)

The rejection of claims 1-27 as being anticipated by U.S. Patent No. 5,845,090 of Collins, et al. is respectfully traversed. This patent was cited in a search report in a corresponding application, and was submitted for consideration by the examiner for that reason. However, it appears to applicant that the Collins et al. reference is unrelated to the claims and cannot anticipate them.

The claims concern, generally speaking, generating information for configuring network elements in order to change, add or delete transport services with defined service levels on a packet network. A packet network communicates information in packets. It can be any type of information, such as binary files, text, graphics, audio, or video. Decisions on forwarding packets are made by network elements, such as routers, bridges, switches, etc., which are computing devices programmed to examine packet headers and to make decision on how to treat any given packet based on its header. At its most basic level, a packet network provides simple packet forwarding services between two hosts without any performance or service level guarantees. For example, an Internet Protocol network forwards packets based on an IP address contained in the IP header of the packet. The IP addresses are used to look up in a routing table a next hop address to which the packet is to be forwarded.

The term transport service, as used in the application, refers generally to network service relating to delivery of a flow of packets between endpoints. One example of a transport service

mentioned in the specification at paragraph 0022 is a private, logical link between two sites of a customer. To the customer, it may appear as a simple connection. However, it is implemented on a packet network by, for example, configuring a VPN connection using MPLS. Furthermore, the connection may provide certain bandwidth or other guarantees, depending on the nature of the applications using the connection. For example, voice or video applications require low latency and jitter in terms of transport of packets. Video may, for example, require a high bandwidth and therefore, to ensure enough bandwidth, the bandwidth is reserved.

In order to provide a particular type of transport service to a network services customer, certain elements of the network – e.g. certain routers, switches, gateways, etc. – have to be especially configured on how to recognize and treat packets that are being transported by the service, and possibly also how to treat other packets. This is a complex process. As explained in paragraphs 0005 of the specification, the invention pertains generally to reducing the complexity on the part of the network operator and the customer of changing existing configurations of the network elements in order to implement new or changed transport services.

Collins et al., on the other hand, disclose a method for distributing “software packages” using what they call “Electronic Software Distribution.” See, e.g., Col. 1, lines 31-41 and col. 2, lines 23-25 (“The present invention is a means of distributing software in a digital computer network by using the network to transmit Software Packages.”) It appears that the examiner is contending that these software “packages” are “packets.” They are not. What is described by Collins et al. appears to have nothing to do with automatically generating configuration information for network elements.

In order to anticipate a claim, Collins et al. must meet each and every limitation in the claim. There are numerous limitations not met in each of the claims.

For example, with respect to independent claims 1, 13 and 21, the examiner contends that Fig. 5B, col. 7, lines 34-49 and col. 8, lines 22-38 of Collins et al. describe receiving a service request for adding, modifying or canceling a packet transport service. At the cited lines in the column 7, Collins et al. are describing staging distribution of the software packages for when computers to which the packages are to be distributed are off-line. In the cited passage in column 8 they describe how target computers in heterogeneous environments can provide criteria to a transfer daemon, which will then remove optional data files and methods from the software

package before distribution. The passage appears to have nothing to do with a request for adding or changing packet transport services on packet networks.

Regarding claim 27, the examiner contends that metadata, which is included in the software packages of Collins et al. and describes certain attributes of data (type, name, identifier, description), anticipates the claim. However, the claim requires metadata which describes the elements (*e.g.* routers, etc.) of a packet network, the relationship between those network elements, and the properties to be stored with respect to those elements. The examiner fails to mention where in Collins et al. there is to be found metadata that describes an actual network configuration, as well as a database with fields defined by the metadata for storing configuration data for the network elements. The undersigned representative cannot find any suggestion of this kind of data structure in Collins et al.

It is respectfully submitted that the rejection under Section 102(b) is in error for at least these reasons. It is further submitted that claims 1-26 are allowable for at least the reason that the prior art of record does not teach or suggest, alone or in combination, automatically generating configuration information for network elements in order to implement a request for adding, modifying or deleting a packet transport service having predefined packet levels on packet transport networks. Claim 27 is allowable for at least the reason that the prior art of record does not disclose use of metadata which describes the elements of a packet network, the relationship between those network elements, the properties to be stored with respect to those elements, and field defined by the metadata for storing configuration information for the network elements.

Applicants have elected not to address several errors contained in the examiner's reasoning. Given the magnitude of the errors addressed above, doing so is unnecessary at this time. By not addressing them at this time, applicants are neither waiving the right to complain about these other errors nor acquiescing to any of the examiner's reasoning.

Request for Interview

A telephone interview is respectfully requested at the time of reconsideration of the application.

CONCLUSION

It is respectfully submitted that the Application is now allowable. Accordingly, applicant respectfully requests reconsideration and allowance of the application. The Commissioner is authorized to charge any fees, including but not limited to extension of time and additional claims fees, due but not submitted with this paper to Deposit Account No. 07-0153. The Examiner is respectfully requested to call applicant's Attorney if or any reasons that would advance the current application to issue. Please reference Attorney Docket No. 131195-1003.

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Respectfully submitted,
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